Technical Data Sheet

# DOWLEX™ 2366 Polyethylene Resin

## Description

DOWLEX™ 2366 Polyethylene Resin is an ethylene/octene-1 copolymer, produced in the proprietary solution process of The Dow Chemical Company. It has a unique molecular structure with a controlled side chain distribution, which provides excellent stress crack resistance properties combined with very good long term hydrostatic strength and high flexibility.

## Applications

Pipes for hot and cold-water systems, e.g.:

- Floor heating
- Wall heating/cooling
- Ceiling cooling
- Radiator connections
- Warm/cold drinking water distribution
- Heat recovery systems
- Solar panels

## Processing Recommendations

Typical extrusion temperatures for processing of DOWLEX™ 2366 Polyethylene Resin range from 190 to 230°C. The use of a reverse temperature profile may be beneficial on certain types of processing equipment. For further information, see our Extrusion Guideline.

## Complies with

- EU, No 10/2011
- U.S. FDA 21 CFR 175.105(c)(5)

Consult the regulations for complete details.

## Additive

- Antiblock: No
- Slip: No
- Processing aid: No

## Properties[1]

| Physical | Nominal Value | Unit | Test Method |
|---|---|---|---|
| Density | 0.933 | g/cm³ | ISO[2] 1183-1 |
| Melt Index | | | |
| 190°C/2.16 kg | 0.70 | g/10 min | ISO 1133 |
| 190°C/5.0 kg | 2.25 | g/10 min | ISO 1133 |
| **Mechanical** | **Nominal Value** | **Unit (SI)** | **Test Method** |
| Tensile Modulus | | | ISO 527-2 |
| 2.00 mm, Compression Molded | 560 | MPa | |

1. Typical properties: these are not to be construed as specifications. Users should confirm results by their own tests.
2. ISO: International Standardization Organization

## Properties (Cont.)

| Mechanical | Nominal Value | Unit (SI) | Test Method |
|---|---|---|---|
| Tensile Stress | | | ISO 527-2 |
| Yield, 2.00 mm, Compression Molded | 17.0 | MPa | |
| Break, 2.00 mm, Compression Molded | 43.0 | MPa | |
| Tensile Strain | | | ISO 527-2 |
| Yield, 2.00 mm, Compression Molded | 13 | % | |
| Break, 2.00 mm, Compression Molded | > 800 | % | |
| Flexural Modulus | 600 | MPa | ISO 178 |
| **Thermal** | **Nominal Value** | **Unit (SI)** | **Test Method** |
| Vicat Softening Temperature | 119 | °C | ASTM[3] D1525 |
| CLTE – Flow (20 – to 70°C) | 2.74 E-4 | cm/cm/°C | DIN[4] 53752 |
| Thermal Conductivity (60°C) | 0.40 | W/m/K | DIN 52612 |
| **Cured Properties** | **Nominal Value** | **Unit (SI)** | **Test Method** |
| Shore Hardness | | | |
| Shore D, 2.00 mm | 60 | | ISO 868 |

3. ASTM: American Society for Testing and Materials
4. DIN: Deutsche Industrie Norm

## Product Stewardship

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a. long-term or permanent contact with internal bodily fluids or tissues. “Long-term” is contact which exceeds 29 calendar days;
b. use in cardiac prosthetic devices regardless of the length of time involved (“cardiac prosthetic devices” include, but are not limited to, pacemaker leads and devices, artificial hearts, heart valves, intra-aortic balloons and control systems, and ventricular bypass-assisted devices);
c. use as a critical component in medical devices that support or sustain human life;
d. use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction; or
e. use as an ingredient of a pharmaceutical injectable application.

## Medical Applications Policy (Cont.)

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